REMARKS

Claims 1-3, 5-6, 21-23 and 25-26 were examined and reported in the Office Action. Claims 1-3, 5-6, 21-23, and 25-26 are rejected. Claims 1, 5, 21 and 25 are amended. Claims 1-40 remain. Attached hereto is a marked-up version of the amendments to the application as indicated above.

Applicant requests reconsideration of the application in view of the following remarks.

I. 35 U.S.C. § 112, second paragraph

It is asserted in the Office Action that claims 5 and 25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 5 and 25 to include the limitation of "from a center point along each of the leading edge and the trailing edge" for clarification purposes.

Accordingly, withdrawal of the 35 U.S.C. § 112, second paragraph rejection for claims 5 and 25 is respectfully requested.

II. 35 U.S.C. § 102(b)

It is asserted in the Office Action that claims 1, 3, 6, 21, 23 and 26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Applicant's admitted prior art of Figures 1 and 2. Applicant respectfully disagrees.

Applicant's amended claims 1 and 21 contain the limitations of "the leading edge and the trailing edge are curved." Applicant's claimed invention relates to a mounting hat for a brake rotor and a brake rotor that have standoff vanes that are aerodynamically shaped, with curved leading and trailing edges, to induce and direct a volume of air through vents formed between the standoff vane when the hat/hub is coupled with a rotor.

It is asserted in the Office Action that Figures 1 and 2 have aerodynamic shaped standoff vanes. Figures 1 and 2, however, illustrate the prior art standoff vanes that

are squared. The square shape of the prior art standoff vanes push air out without directing the air to flow through a vent. The prior art standoffs are designed for ease of manufacture and to standoff a distance from a mounting surface to a brake rotor. The cooling of brake rotors in prior art takes place from fins between two plates of a rotor to induce air flow through vents formed between fins. Applicant's prior art Figures 1 and 2 do not disclose or suggest the limitations contained in Applicant's amended claims 1 and 21 of "the leading edge and the trailing edge are curved."

Therefore, since the prior art illustrated in Applicant's Figures 1 and 2 do not teach, suggest or disclose the limitations contained in Applicant's amended claims 1 and 21, as stated above, Applicant's claim s 1and 21 are not anticipated by Applicant's admitted prior art. Additionally, the claims that depend directly or indirectly on claims 1 and 21, namely claims 3, 6 and 23, 26, respectively, are also not anticipated by Applicant's admitted prior art for the above same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejections for claims 1, 3, 6, 21, 23 and 26 is respectfully requested.

III. 35 U.S.C. § 103(a)

It is asserted in the Office Action that claims 2, 5, 22 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's prior art illustrated in Figures 1 and 2 in view of U.S. Patent No. 5,427,212 issued to Shimazu et al. ("Shimazu"). Applicant respectfully disagrees.

In order to establish a *prima facie* case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. (In re Dance, 160 F.3d 1339, 1342 (Fed. Cir. 1998); In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed.Cir.1992)).

It is asserted in the Office Action that Shimazu shows "a curving design to vanes 22." Shimazu, however, discloses a plurality of fins 22, where the plurality of fins are contained in, and specifically designed for, a brake rotor. In Shimazu, the fins 22 (and 21), however, are not standoff vanes that separate a brake rotor from a

mounting structure and are not designed to connect a mounting surface to a brake rotor since the structure of fins 22 cannot have permit coupling to another surface through the fin 22.

The point in time that is critical for an obviousness determination is at the time of invention. "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." (W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)). Further, obviousness cannot be established by hindsight combination to produce the claimed invention. (In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed.Cir.1991)).

Applicant's standoff vanes are not contained in a rotor. Applicant's standoff vanes provide additional cooling to a brake rotor by specifically directing airflow through vents formed between standoff vanes. The prior art does not direct cooling since the shape of the prior art standoff vanes are squared. The fins illustrated in Shimazu do not "space apart the upper section from a brake rotor," (claim 1) or "space apart the hub from the rotor" (claim 21). There is no teaching, suggestion or motivation from the disclosure of Shimazu to arrive at Applicant's claimed invention. Further, the purpose of brake rotor standoffs, as known to those skilled in the art, is to provide a mounting surface and elevation from a mounting plate or hub to a brake rotor. Applicant's claimed invention goes outside the knowledge of those skilled in the art to provide an additional function of brake rotor standoffs that was never considered in the art of brake rotors and mounting hats.

Therefore, even if one skilled in the art of brake rotors and mounting hubs were to combine all the teachings of Applicant's figures 1 and 2 and Shimazu, there would still not be any motivation to arrive at Applicant's claimed invention since fins in brake rotors and standoffs have two separate functions. Further, nowhere in Shimazu is there a teaching or suggestion to add additional cooling to a brake rotor assembly by using aerodynamically shaped standoff vanes.

Since neither Shimazu nor Applicant's prior art teach, disclose or suggest the limitations contained in Applicant's amended claims 1 and 21, from which claims 2, 5, and 22, 25 depend on, respectively, it would not have been obvious to one of ordinary

skill in the art to combine the teachings of Applicant's admitted prior art in view of Shimazu.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejections for claims 2, 5, 22 and 25 are respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely 1-40, patentably defines the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,
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Dated: June 20, 2002

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office, Box Non-Fee, Amendments, Commissioner for Patents, Washington, D.C. 20231, on the date shown below.

_____
Linda D'Elia June 20, 2002

Attachment: Version With Markings To Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

The claims have been amended as follows:

1. (Twice Amended) A mounting hat for a brake rotor comprising:

a lower section coupled to an upper section,

a plurality of aerodynamically shaped standoff vanes each having a leading edge, a trailing edge, a top and a bottom coupled to the upper section, the aerodynamically shaped standoff vanes space apart the upper section from a brake rotor, wherein the leading edge and the trailing edge are curved; and

a plurality of vents formed between adjacent aerodynamically shaped standoff vanes, wherein the vents are circumferentially distributed on the upper section, and air flow is induced to flow through the plurality of vents.

5. (Amended) The mounting hat of claim 1, wherein the leading edge and the trailing edge of the plurality of aerodynamically shaped standoff vanes are asymmetrical from a center point along each of the leading edge and the trailing edge.

21. (Twice Amended) A brake rotor comprising:

a rotor,

a hub having a plurality of aerodynamically shaped standoff vanes each having a leading edge, a trailing edge, a top, a bottom and a plurality of vents formed between adjacent aerodynamically shaped standoff vanes coupled to the rotor, wherein the vents are circumferentially distributed between the hub and the rotor, air flow is induced to flow through the plurality of vents, ~~and~~ the aerodynamically shaped standoff vanes space apart the hub from the rotor, and the leading edge and the trailing edge are curved.

25. (Amended) The brake rotor of claim 21, wherein the leading edge and the trailing edge of the plurality of aerodynamically shaped standoff vanes are asymmetrical from a center point along each of the leading edge and the trailing edge.